

# PROVIDER USER'S MANAGEMENT PROGRAM (PUMP) GUIDE

To accompany ECHO version 6.0 May 2005

# **Revision History**

'ersion	Description	Author
6.0	Updated provider registration screenshot	M Rabi
6.0	Added new screenshots of group management functionality	M Rabi
6.0	Added User Options section	M Rabi
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#### 1 OVERVIEW

PUMP (Provider User Management Program) is a User Interface (UI) tool that enables Earth Observing System (EOS) Clearing House (ECHO) data providers/partners to manage their ECHO metadata. This document provides basic information on the use of the PUMP User Interface. It describes what PUMP is, where to get it, and how to use it.

#### 1.1 Background (How PUMP relates to ECHO)

ECHO is an enabling framework that allows different data systems and services to work together. ECHO helps data providers make their Earth science resources available to the science community. An ECHO data provider is an entity that participates with ECHO to provide Earth science data in the form of its metadata holdings. This metadata is available for search and order. However, providers have control over who can search and order their data.

There are two types of users in ECHO: guest and registered users. A registered user is a person who has registered with ECHO by providing basic contact information. Registered users can be given the provider role, which gives them privileges to act on behalf of a data provider to manage their metadata. The provider role can be given to a registered user by ECHO Ops or by another registered user with the provider role. PUMP is a tool that allows providers to manage their metadata.

#### 2 How To Use Pump

Since data providers use PUMP to manage their metadata in ECHO, login to ECHO is necessary to safeguard the metadata integrity. PUMP uses ECHO registration information to authenticate a user.

# 2.1 Description of PUMP UI

The PUMP User Interface uses a set of three panels to interact with users: the ECHO server session, the navigator, and the data display/work area. Each panel controls different processes of ECHO. The figure below shows a typical screen:

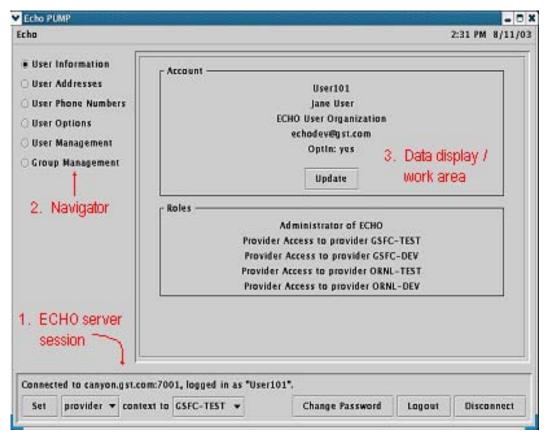


Figure 1. PUMP working screen.

- The ECHO server session panel is located at the bottom of the screen. It allows users to perform server related functions, e.g., set/leave provider context, login to ECHO, change user's own password, and disconnect from the ECHO server.
- 2. The navigator panel on the left of the screen allows users to select a task through a list of radio buttons.
- 3. The data display/work area panel occupies the remaining screen. This panel displays the data and parameters the users can specify for the task selected from the navigator panel.

#### 2.2 How to get and install PUMP

1. The PUMP client installation package can be found at the following link: http://canyon.gst.com/public/pump\_releases/v\_6\_0\_1/dist/webstart/pump.jnlp

2. Click on the link and follow the installation instructions. The PUMP client installs using Java Web Start technology. Version 1.4.2 or higher of the Java Runtime Environment (JRE) is required to install PUMP on a local machine. The JRE is available from the Sun Microsystems's JRE download page (http://java.sun.com/j2se/desktopjava/jre/index.jsp).

Note: When you click on the Java Web Start PUMP installation link, a security warning will be displayed. The warning includes "Failed to verify the authenticity of the certificate" and "It is highly recommended not to install and run this code."

The reason for the warning is the ECHO Development Group created a certificate for the PUMP software. Since the certificate is not validated by an independent third-party, the Web Start software displays the warning. We are currently working on obtaining a commercial certificate for PUMP. If you have any questions or concerns about installing PUMP, please contact ECHO Operations at <a href="mailto:echo@killians.gsfc.nasa.gov">echo@killians.gsfc.nasa.gov</a>.

# 2.3 Connecting to ECHO

To connect to the ECHO server using PUMP:

- 1. When you launch the PUMP UI you will get the following Connection screen.
- 2. The SOAP server and DTD location are selected separately. Select the needed ECHO server from the pull-down selection list, or type the ECHO server location into the input field. If you want to access the operational server, select http://api-soap.echo.eos.nasa.gov/soap/servlet/rpcrouter. If you want to access the partner test system, select http://api-test-soap.echo.eos.nasa.gov/soap/servlet/rpcrouter. Now select the DTD location. If you want to access the operational server, select http://api-echo.eos.nasa.gov/echo/dtd. If you want to access the partner test system, select http://api-test.echo.eos.nasa.gov/echo/dtd.
- 3. Click on the "Connect" button. The login screen will appear.
- 4. To cancel your connection to the ECHO server, click on the "Disconnect" button at the bottom of the screen.



Figure 2. Connection screen

#### 2.4 Registration Service

The Registration Service is the interface that allows a user to become a registered user and allows potential providers to submit a provider application.

# 2.4.1 Becoming an ECHO Registered User

To become an ECHO registered user:

- 1. From the Login screen below, click the "User Registration" button on the navigator panel. The User Registration screen (Figure 4) will appear.
- 2. Fill in all the input fields and click the "Register" button at the bottom of the work area panel. A message indicating successful registration will return if the information provided meets all the ECHO requirements.

Note: ECHO requires passwords to be at least 10 characters long and incorporate at least 3 out of 4 character types, such as lower case, upper case, numerical value and special characters. In addition, special characters ("&" "<", ">", etc.) are not accepted in the registration text.



Figure 3. Login screen

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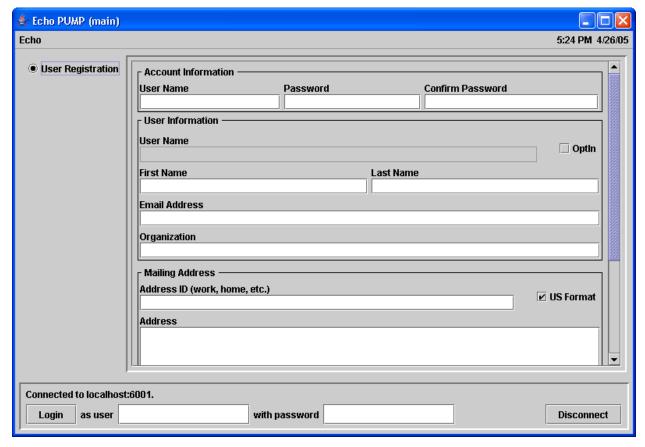


Figure 4. User Registration

#### 2.5 Logging in to ECHO

From the Login screen (Figure 3):

- 1. Type your user name and password in the input fields and click the "Login" button. If you don't have an ECHO account, see the "Registration Service" section.
- 2. Once you are logged in to the ECHO server via PUMP, you will be presented with the Display User Information screen (Figure 5).
- 3. From this point you will be allowed to perform different tasks depending on the level of permissions you have. The permissions are based on the type of user you are.
  - a. All registered user can manage their own user information and perform all of the tasks described in the Registered Users section.
  - b. A registered user who is designated as a group manager can perform group management tasks such as maintaining the group's description, name, and membership roster. A group manager can create groups if he/she also has the provider role.
  - c. A registered user with the provider role can access and update information about the providers with which they are associated. Providers can perform all of the tasks described in this document.

#### 3 REGISTERED USERS

#### 3.1 User Information

To view your user information:

1. Select the "User Information" button from the navigator on the upper left part of the screen. The following screen will be displayed.

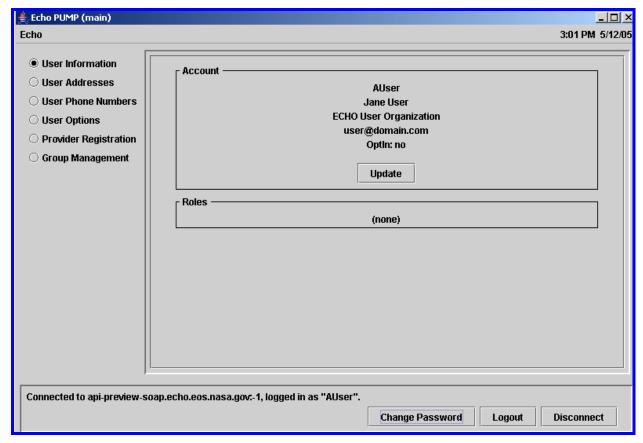


Figure 5. Display User Information

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To change the information:

- 1. Click on the "Update" button. The Edit User Information (Figure 6) screen will be displayed.
- 2. Fill in the fields and click the "Update" button. The screen will display the updated values.

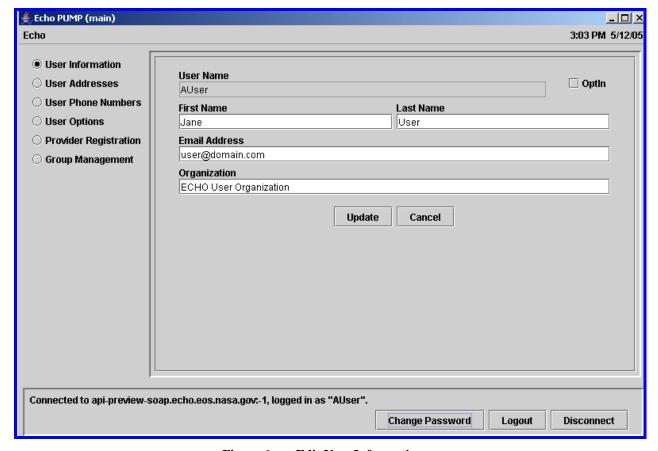


Figure 6. Edit User Information

Note: You can exit a transaction at any time by clicking the "Cancel" button from any of the working screen, and no changes will be saved.

#### 3.2 User Addresses

To view your user address information, select the "User Addresses" button from the navigator to get the Display User Addresses screen (Figure 7).

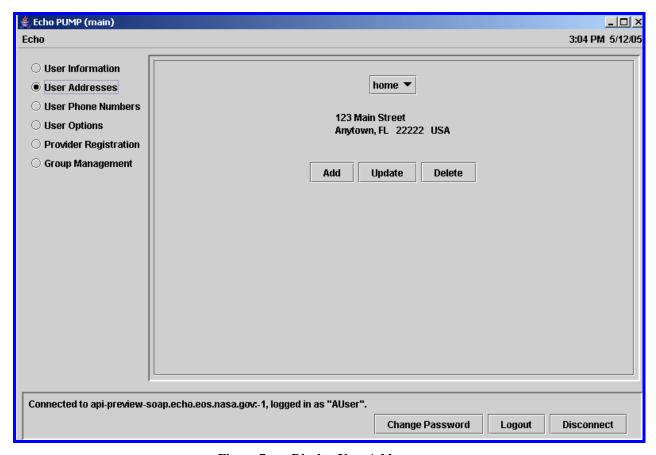


Figure 7. Display User Addresses

To add a new user address:

- 1. Click the "Add" button to get the Add User Address screen (Figure 8).
- 2. Fill in the fields and click on the "Add" button. The screen will display the new added information.

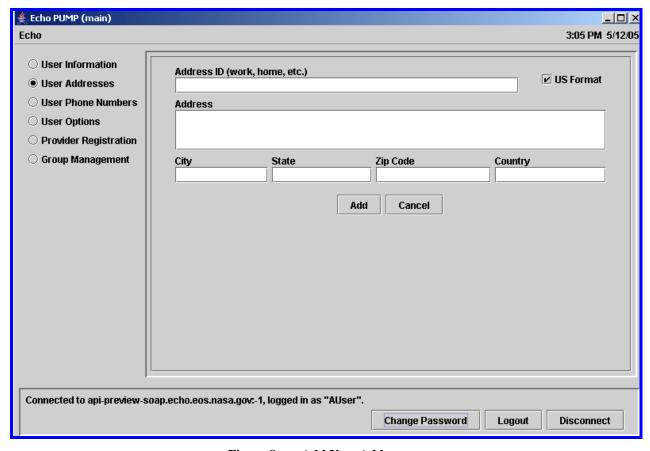


Figure 8. Add User Address.

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To update an existing user address:

- 1. From the Display User Addresses screen (Figure 7) select the address you want to update.
- 2. Click the "Update" button to get the Update User Address screen (Figure 9).
- 3. Modify any fields that need to change, click the "Update" button. The screen will display the updated values.

Note: You can exit a transaction at any time by clicking the "Cancel" button from any of the working screens.

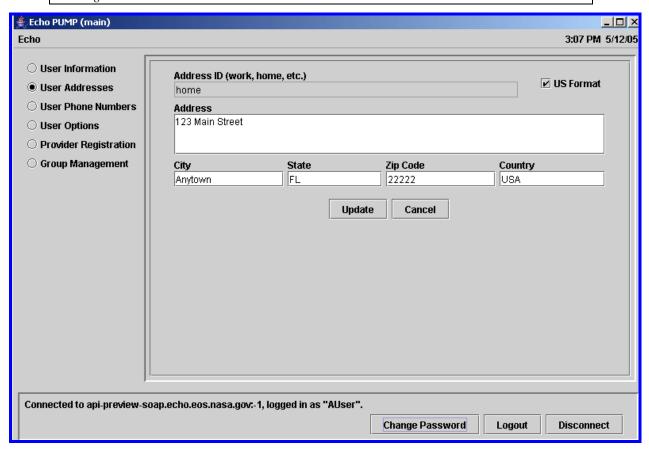


Figure 9. Update User Address

#### 3.3 User Phone Numbers

To view phone number information select the "User Phone Numbers" button from the navigator, and the user phone numbers will be displayed (Figure 10).

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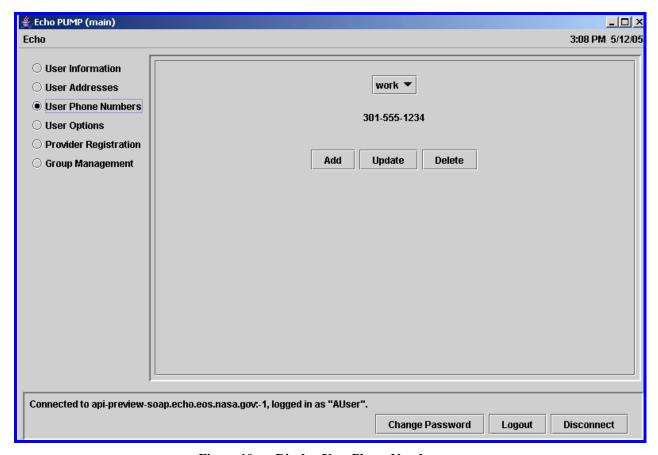


Figure 10. Display User Phone Numbers

To add a new phone number:

- 1. Click on the "Add" button to get the Add User Phone Number screen (Figure 11).
- 2. Fill in the fields, click on the "Add" button. The screen will display the new information.

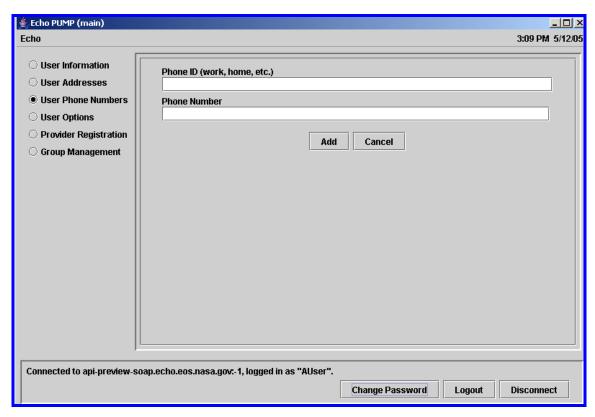


Figure 11. Add User Phone Number

To change the phone number information:

- 1. From the Display User Phone Numbers screen (Figure 10), select the number to change using the pull-down menu.
- 2. Click the "Update" button to get the Update User Phone Number screen (Figure 12).
- 3. Modify the information you want to change and click the "Update" button. The screen will display the updated information.

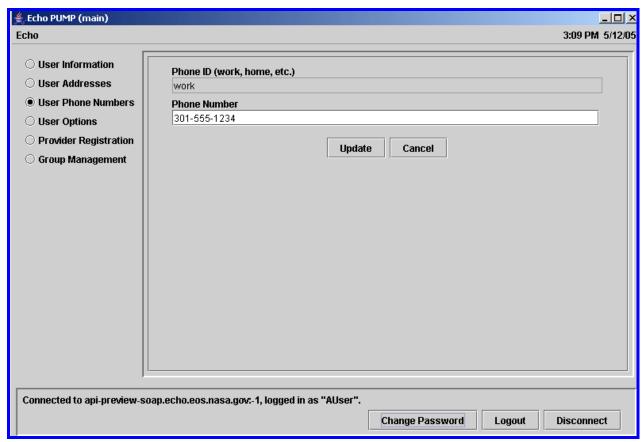


Figure 12. Update User Phone Number

To delete a user phone number:

- 1. From the Display User Phone Number screen (Figure 10), select the phone number you want to delete using the pull-down menu.
- 2. Click the "Delete" button. You will get a screen (Figure 13) prompting you to confirm the deletion of the number.
- 3. Click on the "Delete" button and the updated user phone numbers will be displayed.

Note: You can exit a transaction at any time by clicking the "Cancel" button from any of the working screens.

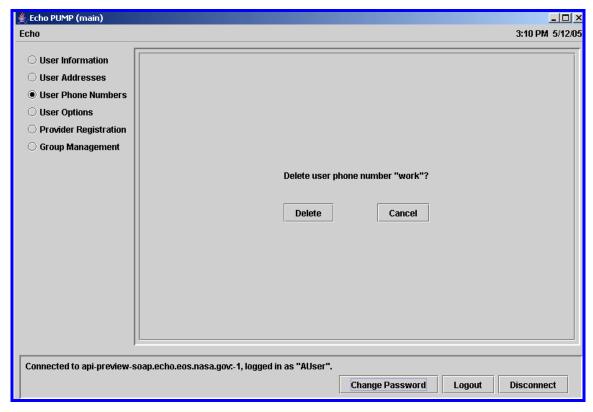


Figure 13. Delete User Phone Number

# 3.4 User Options

To view user options information, select the "User Options" button from the navigator to get the Display User Options screen (Figure 14).

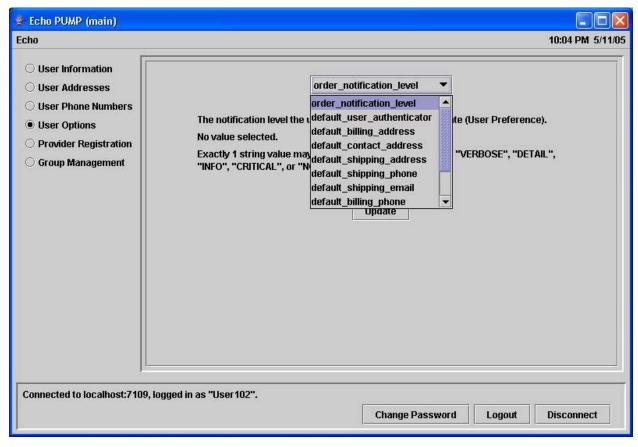


Figure 14. Display User Options

To change user options information:

- 1. From the Display User Options screen, select the option you want to change using the pull-down menu.
- 2. Click the "Update" button to get the Update User Options screen (Figure 15).
- 3. Modify the information you want to change and click the "Update" button. The screen will display the updated information.

Note: You can exit a transaction at any time by clicking the "Cancel" button from any of the working screens.

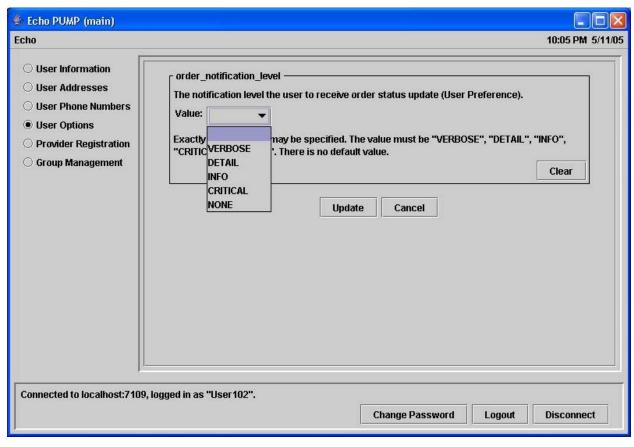


Figure 15. Update User Options

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#### 4 GROUP MANAGEMENT

The Group Management Service provides all activities that an ECHO user needs to maintain and manage groups of users. Groups are aggregations of ECHO registered users, and there are rules governing the membership actions that can be invoked on a group. Each group consists of one owner and one or more managers. Only registered users with the provider role can create groups, but the provider can then delegate group management to any registered user. A group manager is responsible for adding and removing ECHO registered users to the group. A group manager is also responsible for the management of the group managers. Groups are used to communicate among groups of users and their managers. Groups are also used in the Data Management Service when permissions are created in metadata.

#### To create a group:

- 1. Select the "Group Management" button from the navigator to get the Group Management screen.
- 2. Click the "Create Group" button to get the Create Group screen (Figure 17).
- 3. Enter the group information and click on the "Create" button.
- 4. The new group will be displayed (Figure 18).

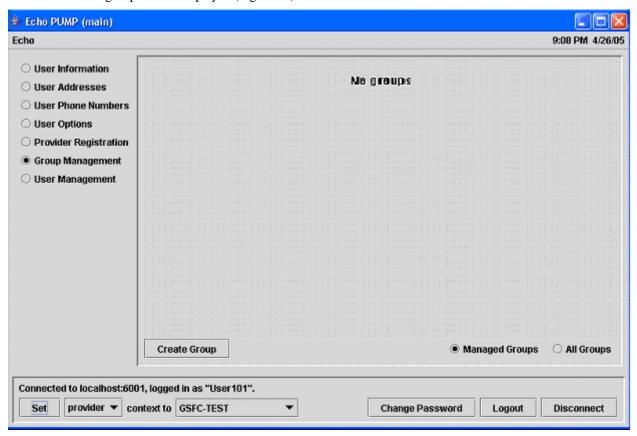


Figure 16. Group Management

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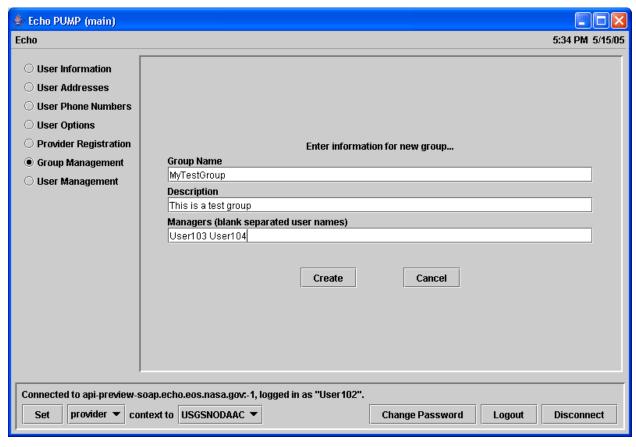


Figure 17. Create Group

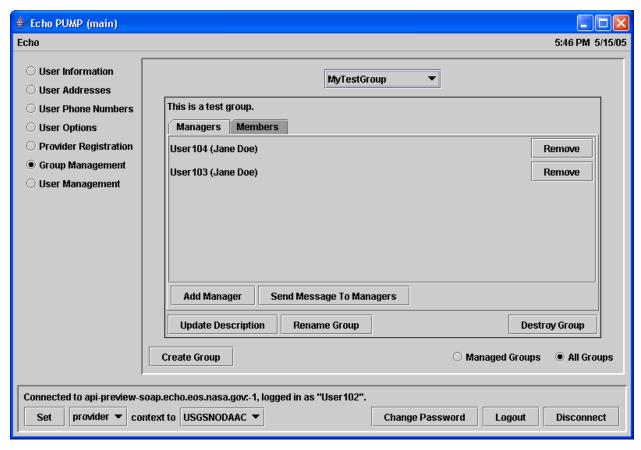


Figure 18. New group added.

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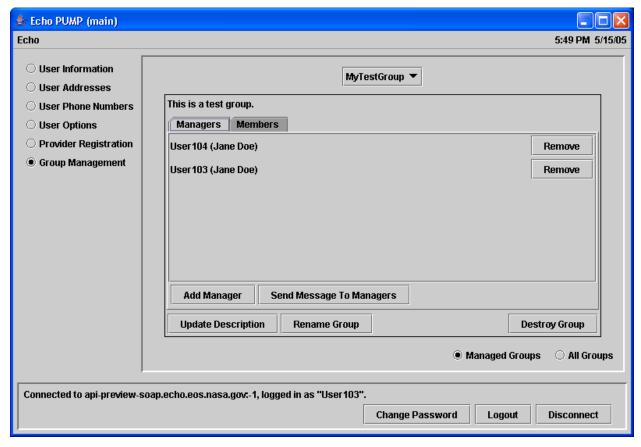


Figure 19. Managed group screen.

To toggle between Managed Groups and All Groups:

1. Select the "Managed Groups" or "All Groups" radio button on the Group Management screen (Figure 19).

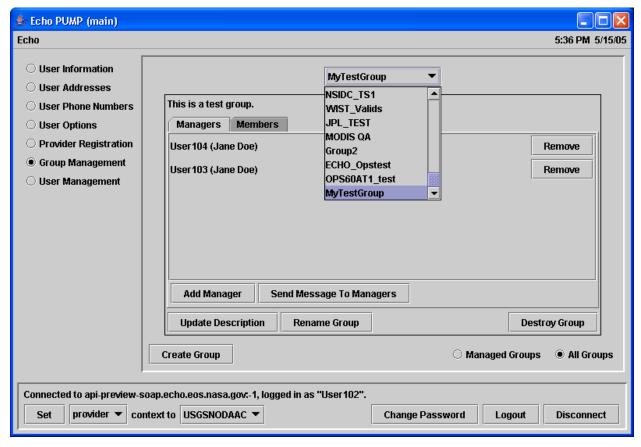


Figure 20. Selection of a group.

To view information on a particular group:

1. Select that group from the drop down list of groups on the Group Management screen (Figure 20).

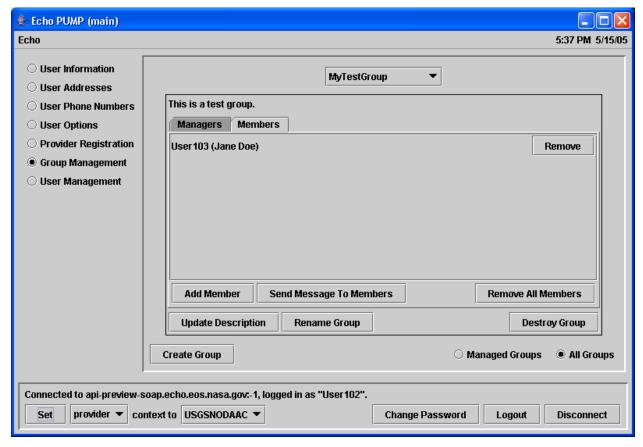


Figure 21. Displaying group members.

## To display group members:

1. Select the "Members" tab on the Group Management screen (Figure 21).

# To remove a group member:

- 1. Select the "Members" tab on the Group Management screen (Figure 21).
- 2. Click on the "Remove" button next to the member you would like to remove from the group. A confirmation screen (Figure 22) will appear.
- 3. Click on "Remove" to finalize the transaction or "Cancel" to cancel.

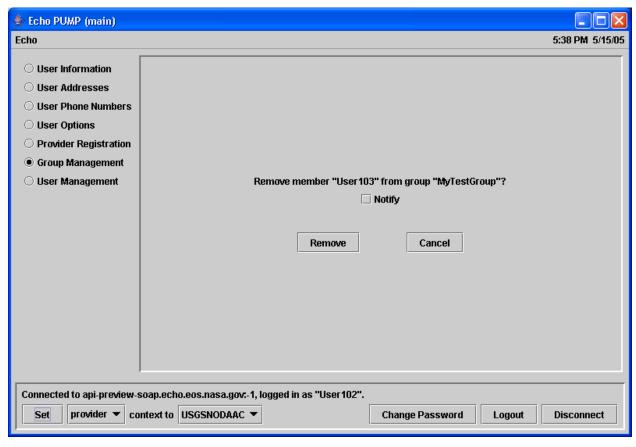


Figure 22. Removing a member from a group – confirmation screen.

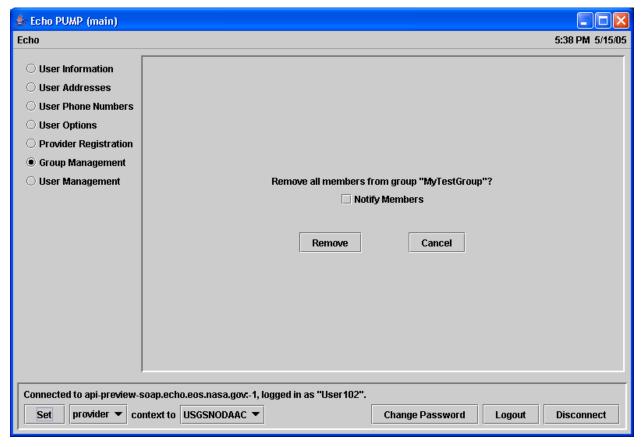


Figure 23. Removing all members of a group.

# To remove all group members:

- 1. Select the "Members" tab on the Group Management screen (Figure 21).
- 2. Click on "Remove All Members" button. A confirmation screen (Figure 23) will appear.
- 3. Click on "Remove" to finalize the transaction or "Cancel" to cancel.

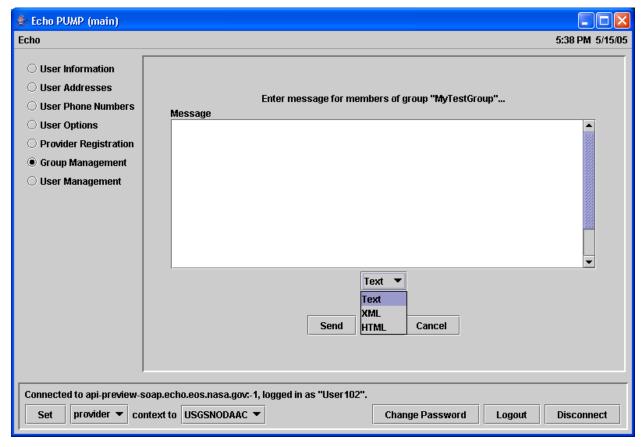


Figure 24. Sending a message to all members of a group.

To send a message to all members of a group:

- 1. Select the "Members" tab on the Group Management screen (Figure 21).
- 2. Click on the "Send Message to Members" button. A message screen (Figure 24) will appear.
- 3. Select the format of the message to be sent from the drop down list.
- 4. Click on "Send" to finalize the transaction or "Cancel" to cancel.

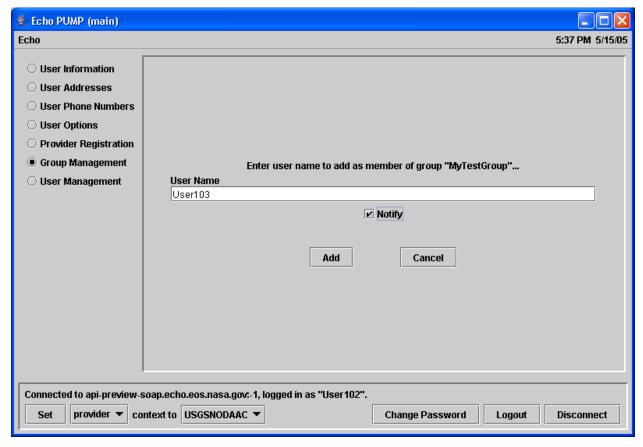


Figure 25. Adding a member to a group.

To add a member to a group:

- 1. Select the "Members" tab on the Group Management screen (Figure 21).
- 2. Click on the "Add Member" button.
- 3. Enter user name of the member to be added (Figure 25).
- 4. Click on "Add" to finalize the transaction or "Cancel" to cancel.

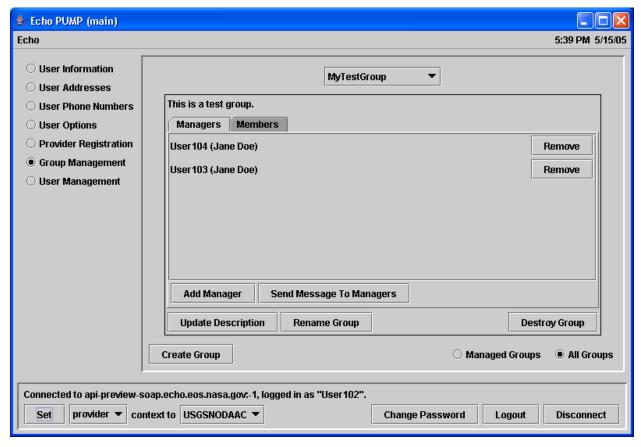


Figure 26. Displaying all managers of a group.

To display all managers of a group:

1. Select the "Managers" tab on the Group Management screen (Figure 26).

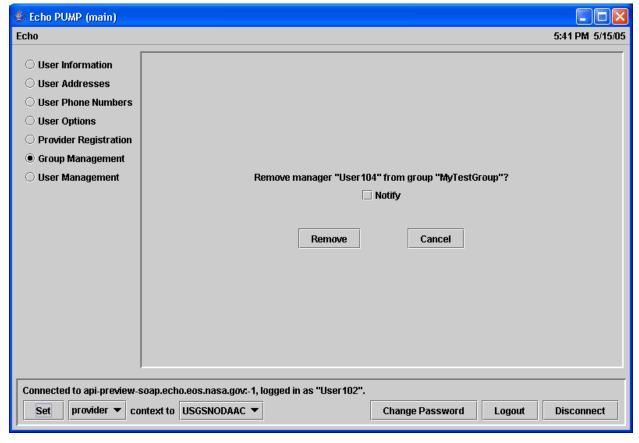


Figure 27. Removing a manager from the list of managers for a group.

To remove a manager for a group:

- 1. Select the "Managers" tab on the Group Management screen (Figure 26).
- 2. Click on the "Remove" button next to the manager you would like to remove from this group. A confirmation screen (Figure 27) will appear.
- 3. Click on "Remove" to finalize the transaction or "Cancel" to cancel.

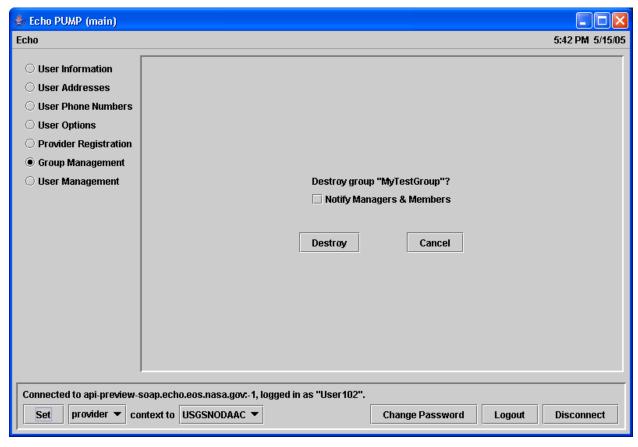


Figure 28. Destroying a group.

# To destroy a group:

- 1. Select the "Managers" tab on the Group Management screen (Figure 26).
- 2. Click on the "Destroy Group" button. A confirmation screen (Figure 28) will appear.
- 3. Click on "Destroy" to finalize the transaction or "Cancel" to cancel.

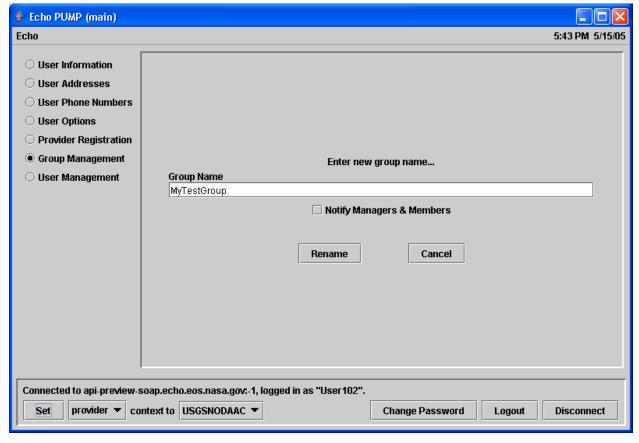


Figure 29. Renaming a group.

## To rename a group:

- 1. Select the "Managers" tab on the Group Management screen (Figure 26).
- 2. Click on the "Rename Group" button.
- 3. Input the new name for this group. Check the "Notify Managers & Members" checkbox if you want the other members of the team to be notified of this change (Figure 29).
- 4. Click on "Rename" to finalize the transaction or "Cancel" to cancel.

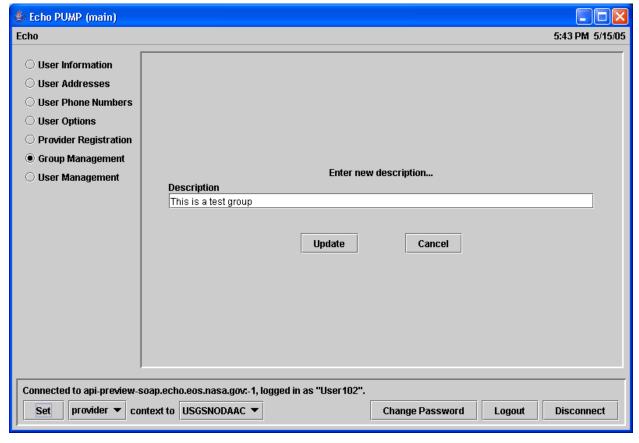


Figure 30. Updating description of a group.

To update description of a group:

- 1. Select the "Managers" tab on the Group Management screen (Figure 26).
- 2. Click on the "Update Description" button.
- 3. Enter the updated description (Figure 30).
- 4. Click on "Update" to finalize the transaction or "Cancel" to cancel.

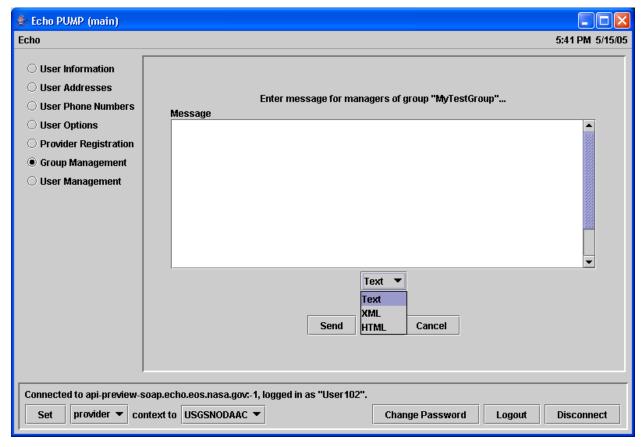


Figure 31. Sending a message to managers of a group.

To send a message to all managers of a group:

- 1. Select the "Managers" tab on the Group Management screen (Figure 26).
- 2. Click on "Send Message to Managers" button. A message screen (Figure 31) will appear.
- 3. Select the format of the message to be sent from the drop down list.
- 4. Click on "Send" to finalize the transaction or "Cancel" to cancel.

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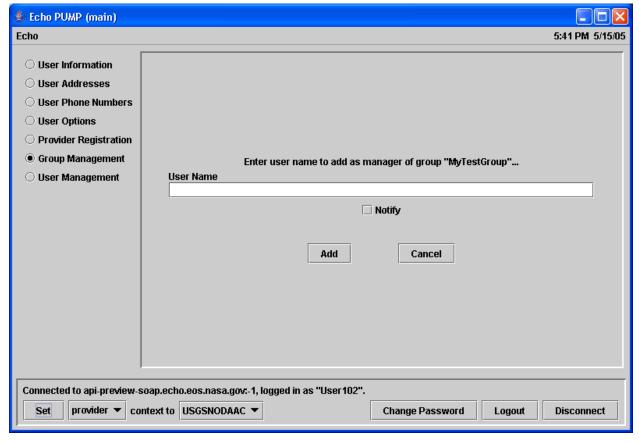


Figure 32. Adding a new user to the list of managers for a group.

To add a member to the list of managers for a group:

- 1. Select the "Managers" tab on the Group Management screen (Figure 26).
- 2. Click on the "Add Manager" button.
- 3. Enter the user name of the manager to be added (Figure 32).
- 4. Click on "Add" to finalize the transaction or "Cancel" to cancel.

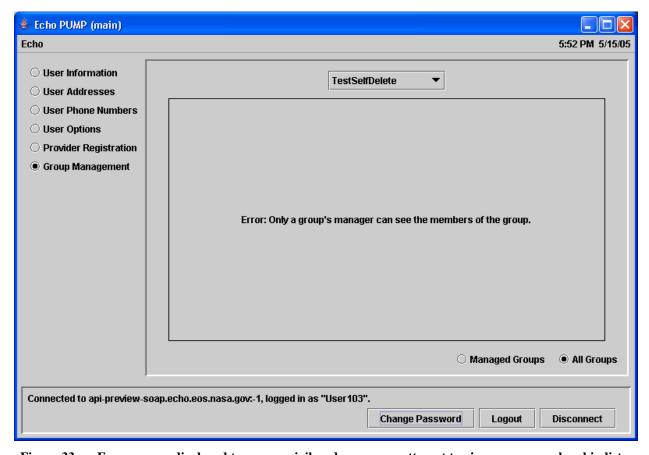


Figure 33. Error screen displayed to a non-privileged user upon attempt to view group membership list

If a user is not a member of the managers' list of a group and tries to view the group's membership list, an error screen is displayed (Figure 33).

#### 5 PROVIDERS

#### 5.1 Becoming a Provider

To submit an application to become a provider of data or services using PUMP, after logging in:

- 1. Select the "Provider Registration" button on the navigator, upper left part of the screen. The Provider Registration screen will appear.
- 2. Fill in all the input fields and click the "Register" button. You will get a message indicating successful registration and a provider ID number. Be sure to record the provider ID number.

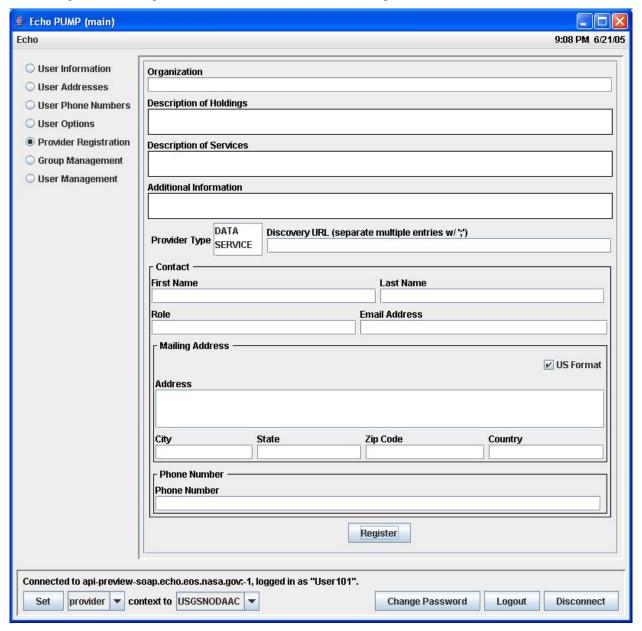


Figure 34. Provider Registration

#### 5.2 Set Provider Context

To perform any data management tasks, you must login as a user using a provider context. You can only do this if you are granted permission to work on behalf of that provider.

To set the provider context for a provider for whom you have been granted access privileges:

- 1. Go to the server session area located at the bottom of the screen and select the "provider" option from the first pull-down menu. Select the provider you want from the second pull-down menu.
- 2. Click the "Set" button on the left. The status bar will be updated and the navigator will have options for data management that only providers can perform.
- 3. Working in the role of a provider, you will have the capabilities allowed to providers.

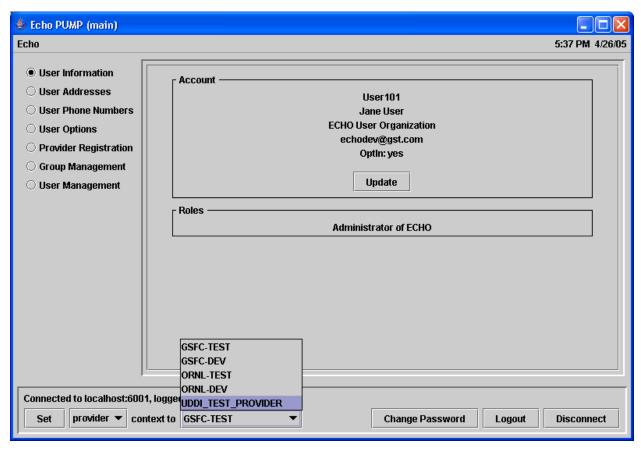


Figure 35. Set Provider Context

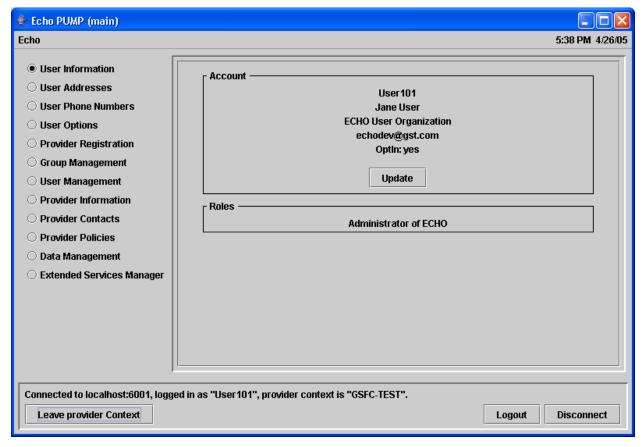


Figure 36. Leave Provider Context

To leave the provider context:

1. Click the "Leave provider Context" button.

#### 5.3 Provider Information

To view the provider information:

1. Select the "Provider Information" button from the navigator; you will get the following screen.

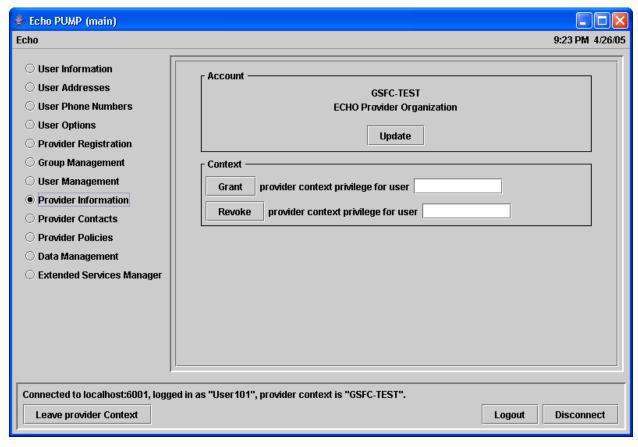


Figure 37. Initial Provider Information

# To change the information:

- 1. Click on the "Update" button; you will get the Edit Provider Information screen.
- 2. Fill in the Organization field.
- 3. Click on the "Update" button for this change to take effect. You will get a message indicating a successful update. The page will reload with the new values displayed.

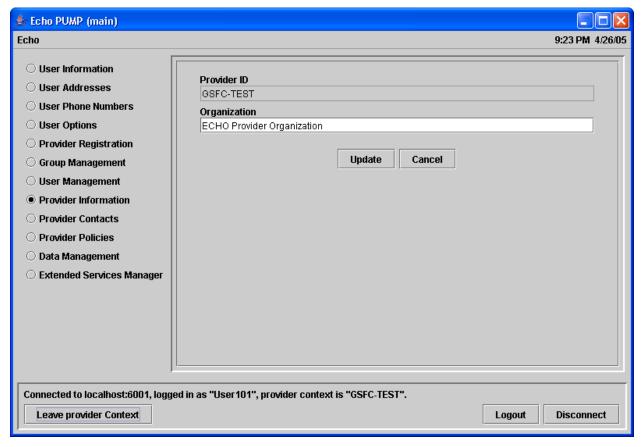


Figure 38. Edit Provider Information

# 5.4 Provider Contacts

To view the provider contact information:

1. Select the "Provider Contacts" button from the navigator; the following screen will be displayed.

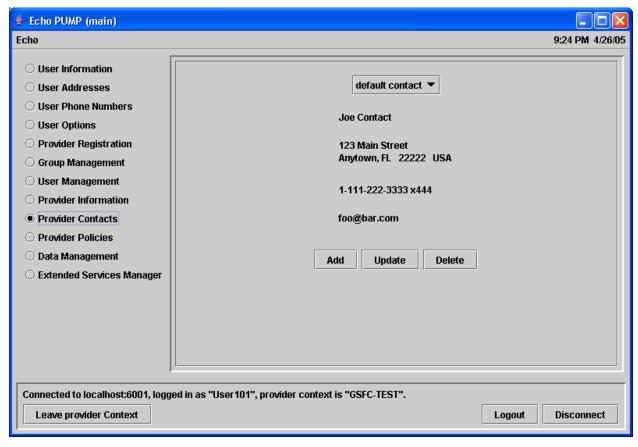


Figure 39. Provider Contacts

To change the contact information:

- 1. Click on the "Update" button to display the Edit Provider Contacts screen.
- 2. Fill in the Name/Mail/Phone fields.
- 3. Click on the "Update" button for this change to take effect. The page will reload with the new values displayed.

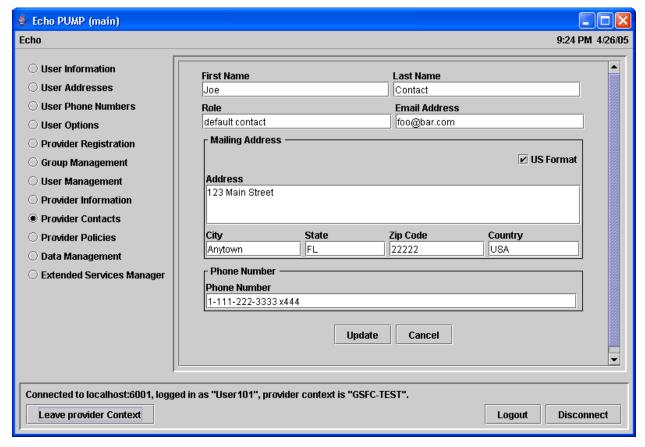


Figure 40. Edit Provider Contacts

## 5.5 Provider Policies

To view the policies:

1. Select the "Provider Policies" button from the navigator to display the following screen.

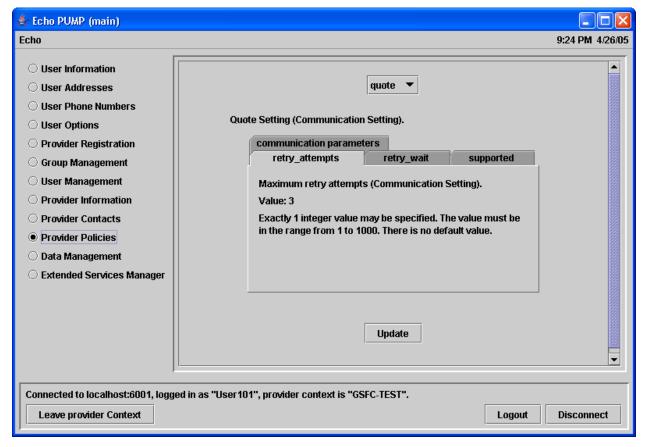


Figure 41. Display Provider Policies

# To change the policies:

- 1. Click on the "Update" button; you will get the Edit Provider Policies screen.
- 2. Fill in the fields appropriate for your provider.
- 3. Click on the "Update" button for these changes to take effect. The page will reload with the new values displayed.

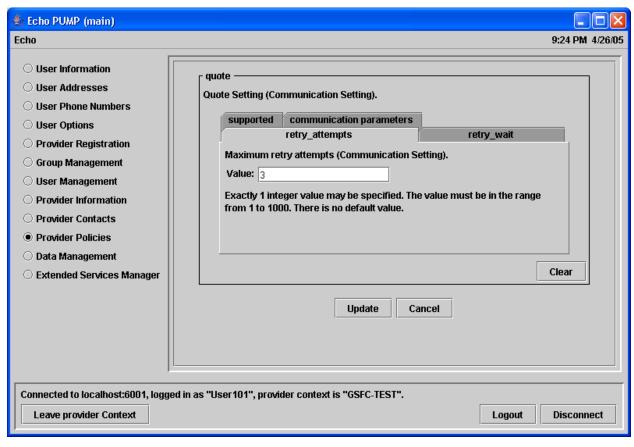


Figure 42. Edit Provider Policies

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#### 6 DATA MANAGEMENT

To control access to metadata, providers use the Data Management Service. This service restricts or permits users of the ECHO system to take action upon metadata. Actions include viewing, browsing, and ordering data defined using metadata. Providers manage data by the use of "conditions," which specify metadata characteristics.

When a Condition, Comparator, Action, and Data Holding come together, a rule is formed. The rule can be either restriction or permission. For example, the rule "restrict viewing of all MODIS metadata less than 30 days old" is composed of the following:

Condition: 30 days old; Comparator: less than;

Action: view:

Data Holding: instrument MODIS.

If a rule is a restriction, it applies to the entire ECHO user community. If a rule is a permission, it applies only to members of the group specified.

To use the Data Management Service with PUMP, after you login as a user, you have to set the context to the provider you will be working for. Once you have the provider context set, you will be presented with options for providers, select the "Data Management" option from the navigator menu.

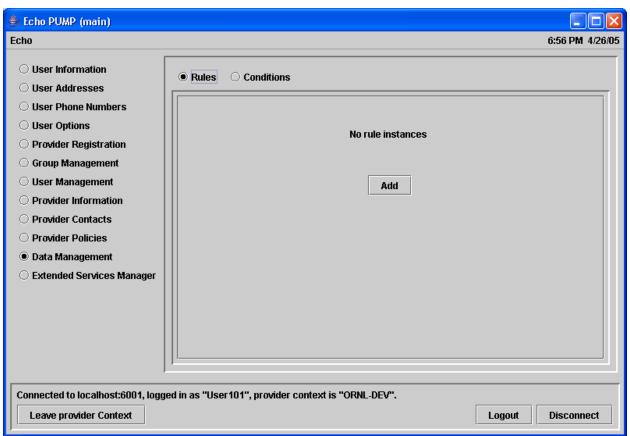


Figure 43. No Rules

Notice that there are two option buttons on top, "Rules" and "Conditions". If you toggle between them, they display a list of rules or conditions.

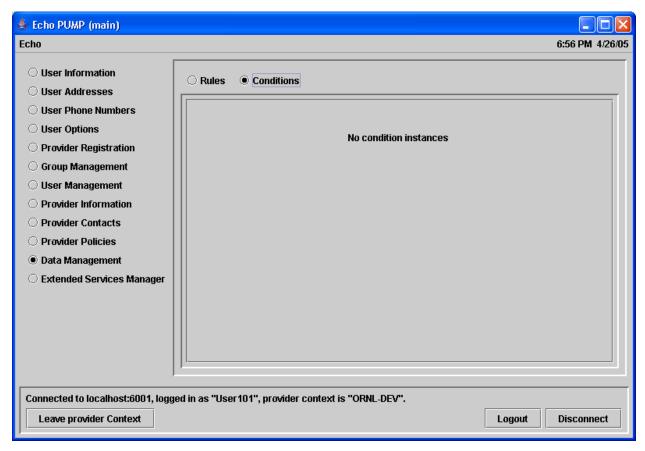


Figure 44. No Conditions

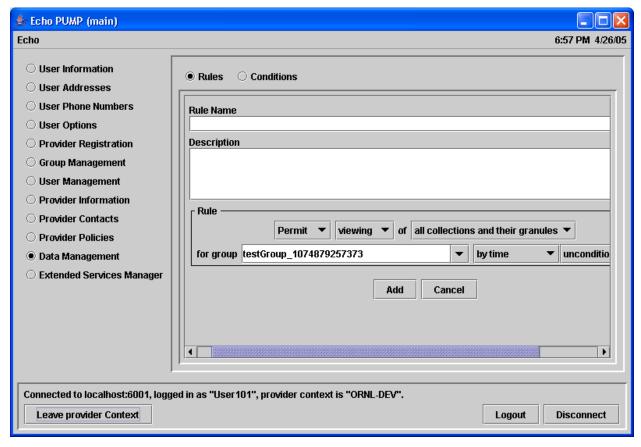


Figure 45. Add Rule

### To add a rule:

- 1. Select the "Rules" button and click on the "Add" button to get the Add Rule screen.
- 2. Fill in the input fields for "Rule Name" and "Description".
- 3. Select the type of rule from the pull-down menu, options are "permit" or "restrict".
- 4. Select the action from the pull-down menu, options are "viewing" or "ordering".
- Select the data holding, options are "all collections and their granules", "all collection granules",
  "collection", or "granule". Choose "collection" or "granule" to create a rule for a specific collection or
  granule.
- 6. Select the comparator and the condition. Depending on the data holding selected, you will have different selections for comparator and condition.
  - a. "All collections and their granules" comparator options are "by time" or "restriction flag". By time has a condition option of unconditionally. Restriction flag condition options are "equals", "not equals", "greater than", "greater than or equal", "less than", or "less than or equal".
  - b. "All collection granules" comparator options are "by time" or "restriction flag". By time condition options are "that are greater than", "that are less than", "that are within", or "that are outside". Restriction flag condition options are "equals", "not equals", "greater than", "greater than or equal", "less than", or "less than or equal".
  - c. "Collection" comparator options are "by time" or "restriction flag". By time condition options are "that are greater than", "that are less than", "that are within", or "that are outside". Restriction flag condition options are "equals", "not equals", "greater than", "greater than or equal", "less than", or "less than or equal".

- d. "Granule" comparator options are "by time" or "restriction flag". By time has a condition option of unconditionally. Restriction flag condition options are "equals", "not equals", "greater than", "greater than or equal", "less than", or "less than or equal".
- 7. Click the "Add" button. You will get the Display Rules screen with the rule you just created.
- 8. Once you add a rule, the system will automatically add the created condition to the conditions list for viewing.

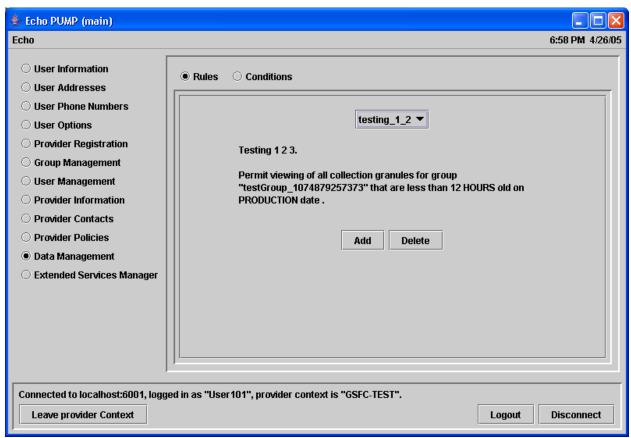


Figure 46. Display Rules

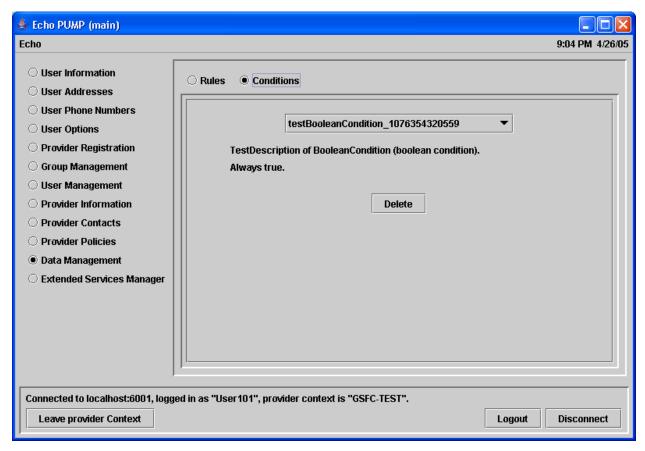


Figure 47. New Condition

If you have several conditions, to view a specific one, select it from the pull-down menu.

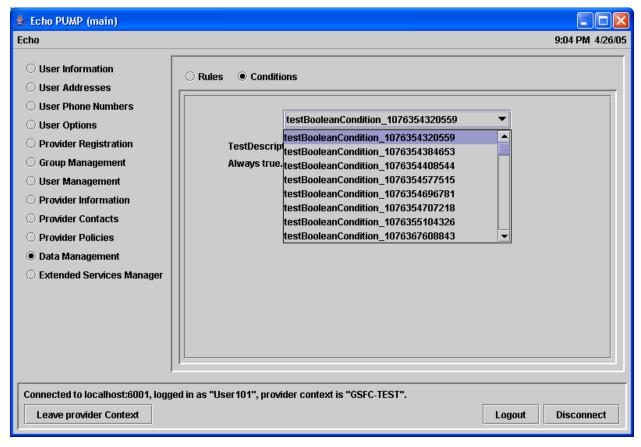


Figure 48. Many Conditions

Once you've added several rules, to view a specific one click the "Rules" button and select the needed rule from the pull-down menu. The chosen rule will be displayed.

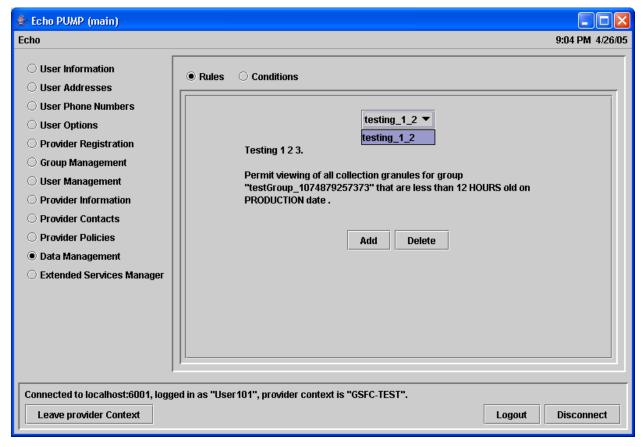


Figure 49. Many Rules

## To delete a rule:

- 1. Display the rule you want to delete, click on the "Delete" button. You will get a screen prompting you to confirm the deletion.
- 2. Click on the "Delete" button. You will get a message indicating successful deletion of the rule.

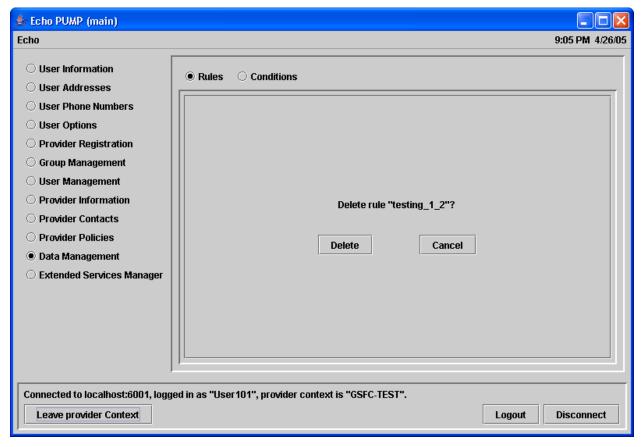


Figure 50. Delete Rule

To delete a Condition: A condition can only be deleted if it is not used in a rule. Conditions can be shared across different providers. ECHO generates an "Unable to delete condition" error when attempting to delete a condition that is actively being used in a rule.

- 1. Select the condition you want to delete
- 2. Click on the "Delete" button. You will get a screen prompting you to confirm the deletion.
- 3. Click on the "Delete" button. You will get a message indicating successful deletion of the condition.

Note: You can cancel a transaction at any time by clicking on the "Cancel" button from any of the working screens.

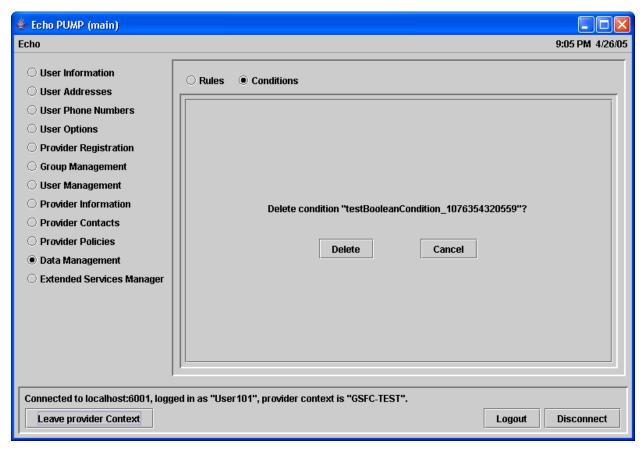


Figure 51. Delete Condition

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## 7 EXTENDED SERVICES MANAGEMENT

To register an extended service with ECHO, providers use the Extended Services Management Service. Actions allowed with this service are 1) registering a service interface and 2) registering a service implementation.

## 7.1 Registering Service Interface

The figure below shows the screen used to register a service interface. To register a service interface, fill in the displayed form as follows:

- 1. Network Address: Enter the URL of the WSDL file describing the service interface. (Required)
- 2. Service Description: Enter a description of the services being registered (Optional)
- 3. Taxonomy Name: Enter one of the ECHO defined taxonomies such as *nasa-ECHO:DataFormat*, *nasa-ECHO-Dataset*, *or nasa-ECHO:ServiceType*.
- 4. Node Key Value: Enter the UUDI node key value for one of the categories listed under the selected Taxonomy Name from above. This information can be retrieved from the Extended Service Viewer.
- 5. Click OK to complete registration.

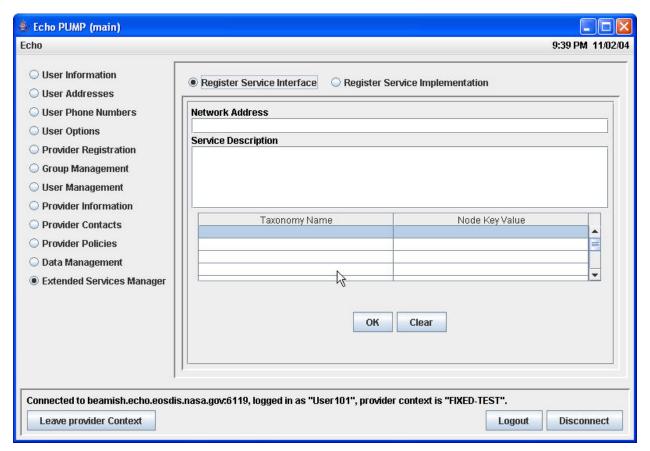


Figure 52. Registering Service Interface

## 7.2 Registering Service Implementation

The figure below shows the screen used to register a service implementation. To register a service implementation, fill in the displayed form as follows:

- 1. Network Address: Enter the URL of the WSDL file describing the service interface. (Required). It is important to note that this WSDL file must contain a reference to the original service interface that the service implements. Please refer to the ECHO Provider Interface User's Guide for details on how to complete the linking of both interface and implementation in the WSDL file.
- 2. Taxonomy Name: Enter one of the ECHO defined taxonomies i.e. *nasa-ECHO:DataFormat, nasa-ECHO-Dataset, or nasa-ECHO:ServiceType*. (Optional)
- 3. Node Key Value: Enter the UDDI node key value for one of the categories listed under the selected Taxonomy Name from above. This information can be retrieved from the Extended Service Viewer. (Optional)
- 4. Click OK to complete registration.

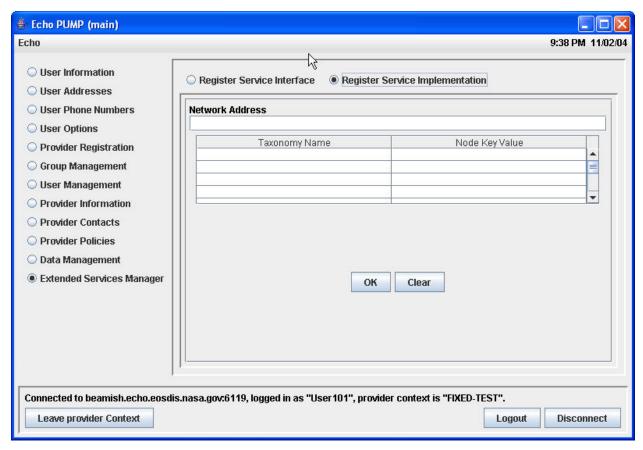


Figure 53. Registering Service Implementation

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# **ACRONYMS**

ECHO	
EOS	Earth Observing System
GUI	
JRE	Java Runtime Environment
PUMP	Provider User Management Program
UDDI	
UI	User Interface
URL	Uniform Resource Locator
WSDL	